

Contents

(Abstracted/Indexed in: *Biol. Abstr.*, *CABS*, *Chem. Abstr.*, *Curr. Contents AB & ES*, *EH & S Digest*, *Environ. Period. Bibliogr.*, *Excerpta Med.*, *Focus On: Global Change*, *Geo Abstr.*, *Meteorol. & Geostrophys. Abstr.*, *Oceanogr. Lit. Rev.*, *PASCAL/CNRS*, *Selected Water Resour. Abstr.*)

Special Issue: Cobalt and Hard Metal Disease. A Collection of Papers Presented at the European Congress on Cobalt and Hard Metal Disease, 12-13 May 1992, Centro Congressi Giovanni XXIII, Bergamo, Italy

| | |
|---|-----|
| Preface | xi |
| Health risks associated with cobalt exposure — an overview | |
| R. Lauwerys, D. Lison (Brussels, Belgium) | 1 |
| The geobiochemistry of cobalt | |
| E.I. Hamilton (Tavistock, UK) | 7 |
| Metal determinations in biological specimens of diseased and non-diseased hard metal workers | |
| E. Sabbioni, C. Minoia, R. Pietra, G. Mosconi, A. Forni, G. Scansetti (Varese, Pavia, Bergamo, Milan and Turin, Italy) | 41 |
| Etiology and pathogenesis of hard metal disease | |
| N.L. Sprince, L.C. Oliver, R.I. Chamberlin, E.A. Eisen, R.E. Greene (Iowa City, IA; Boston and Lowell, MA) | 55 |
| Cobalt and possible oxidant-mediated toxicity | |
| B. Nemery, C.P.L. Lewis, M. Demedts (Leuven, Belgium) | 57 |
| Hard metal disease: clinical aspects | |
| G. Chiappino (Milan, Italy) | 65 |
| Bronchoalveolar lavage in the diagnosis of hard metal disease | |
| A. Forni (Milan, Italy) | 69 |
| The differential diagnosis of hard metal lung disease | |
| G. Rizzato, P. Fraioli, E. Sabbioni, R. Pietra, M. Barberis (Milan and Ispra, Italy) | 77 |
| Cobalt-related asthma: clinical and immunological aspects | |
| A.M. Cirila (Cremona, Italy) | 85 |
| A 1982-1992 surveillance programme on Danish pottery painters. Biological levels and health effects following exposure to soluble or insoluble cobalt compounds in cobalt blue dyes | |
| J.M. Christensen, O.M. Poulsen (Copenhagen, Denmark) | 95 |
| Cobalt cardiomyopathy. A critical review of literature | |
| P. Seghizzi, F. D'Adda, D. Borleri, F. Barbic, G. Mosconi (Bergamo, Italy) | 105 |
| Cobalt exposure in 'hard metal' and diamonds grinding tools manufacturing and in grinding processes | |
| C. Sala, G. Mosconi, M. Bacis, F. Bernabeo, A. Bay, O. Sala (Lecco, Bergamo, Desio and Emilia, Italy) | 111 |
| Cobalt exposure in wet grinding of hard metal tools for wood manufacture | |
| G. Sesana, G. Cortona, A. Baj, T. Quaianni, E. Colombo (Milan, Italy) | 117 |
| Occupational exposure to metallic cobalt in the Province of Bergamo. Result of a 1991 survey | |
| G. Mosconi, M. Bacis, P. Leghissa, G. Maccarana, E. Arsuffi, P. Imbrogno, L. Airoldi, M. Caironi, G. Ravasio, P.C. Parigi, S. Polini, G. Luzzana (Bergamo, Albino, Zogno, Pt. S. Pietro, Trescore Balneario, Lovere-Sarnico and Treviglio, Italy) | 121 |
| Urinary cobalt excretion in short time occupational exposure to cobalt powders | |
| P. Apostoli, S. Porru, L. Alessio (Brescia, Italy) | 129 |

| | |
|--|-----|
| Cobalt excretion in urine: results of a study on workers producing diamond grinding tools and on a control group | |
| G. Mosconi, M. Bacis, M.T. Vitali, P. Leghissa, E. Sabbioni (Bergamo and Varese, Italy) ... | 133 |
| Absorption and excretion of cobalt in the hard metal industry | |
| G. Scansetti, G.C. Botta, P. Spinelli, L. Reviglione, C. Ponzetti (Turin and Ivrea, Italy) | 141 |
| Exposure to cobalt in the welding process with stellite | |
| F. Ferri, S. Candela, L. Bedogni, R. Piccinini, O. Sala (Reggio Emilia, Italy) | 145 |
| Does occupational cobalt exposure determine early renal changes? | |
| I. Franchini, M.C. Bocchi, C. Giaroli, O. Ferdenzi, R. Alinovi, E. Bergamaschi (Parma and Emilia, Italy) | 149 |
| Cobalt speciation in urine of hard metal workers. A study carried out by nuclear and radioanalytical techniques | |
| M. Gallorini, J. Edel, R. Pietra, E. Sabbioni, G. Mosconi (Pavia, Ispra and Bergamo, Italy) . | 153 |
| Hard metal lung disorders: analysis of a group of exposed workers | |
| G. Rivolta, E. Nicoli, G. Ferretti, M. Tomasini (Milan, Italy) | 161 |
| Outcome of occupational asthma due to cobalt hypersensitivity | |
| G. Pisati, S. Zedda (Lecco, Italy) | 167 |
| Bronchoalveolar lavage and its role in diagnosing cobalt lung disease | |
| G. Michetti, G. Mosconi, R. Zanelli, M. Migliori, G. Gaffuri, R. Villa, L. Michetti (Bergamo, Italy) | 173 |
| Cardiac function study in hard metal workers | |
| F. D'Adda, D. Borleri, M. Migliori, G. Mosconi, G. Medolago, G. Virotta, F. Colombo, P. Seghizzi (Bergamo, Italy) | 179 |
| Hard metal disease: eight workers with interstitial lung fibrosis due to cobalt exposure | |
| M. Migliori, G. Mosconi, G. Michetti, L. Belotti, F. D'Adda, P. Leghissa, O. Musitelli, G. Cassina, T. Motta, P. Seghizzi, E. Sabbioni (Bergamo and Varese, Italy) | 187 |
| Health survey of workers occupationally exposed to cobalt | |
| R. Suardi, L. Belotti, M.T. Ferrari, P. Leghissa, M. Caironi, L. Maggi, F. Alborghetti, T. Storto, T. Silva, S. Piazzolla (Bergamo, Pt. S. Pietro and Siate, Italy) | 197 |
| Assessment of risks in occupational cobalt exposures | |
| G. Nordberg (Umeå, Sweden) | 201 |
| Biological monitoring of occupational cobalt exposure in the United Kingdom | |
| M.A. White, D. Dyne (Sheffield, UK) | 209 |
| Effect of acute and chronic cobalt administration on carotid body chemoreceptors responses | |
| L. Morelli, C. Di Giulio, M. Iezzi, P.G. Data (Chieti, Italy) | 215 |
| Genotoxicity testing of cobalt compounds used in the Danish porcelain industry | |
| M.L. Binderup, K. Wassermann (Copenhagen, Denmark) | 217 |
| Evolution of hard metal pulmonary fibrosis in two artisan grinders of woodworking tools | |
| A. Mariano, P. Sartorelli, A. Innocenti (Siena, Italy) | 219 |
| Trace metal lung disease: a new fatal case of hard metal pneumoconiosis | |
| F. Della Torre, L. Cassani, M. Segale, G. Scarpazza, R. Pietra, E. Sabbioni (Coma and Varese, Italy) | 223 |
| Uncommon evolution of fibrosing alveolitis in a hard metal grinder exposed to cobalt dusts | |
| R. Zanelli, F. Barbic, M. Migliori, G. Michetti (Bergamo, Italy) | 225 |
| On the potential of combining neutron activation analysis and particle induced X-ray emission (PIXE) for micro- and microdistribution analysis of hard metals in human tissues | |
| R. Pietra, U. Wätjen, E. Sabbioni, M. Gallorini, G.P. Tartaglia (Varese and Pavia, Italy; Geel, Belgium; Petten, Netherlands) | 231 |

| | |
|---|-----|
| Metabolic and toxicological studies on cobalt | |
| J. Edel, G. Pozzi, E. Sabbioni, R. Pietra, S. Devos (Varese, Italy) | 233 |
| Cobalt powdersintering industry (stone cutting diamond wheels): a study of environmental-biological monitoring, workplace improvement and health surveillance | |
| P. Ferdenzi, C. Giaroli, P. Mori, C. Pedroni, R. Piccinini, R. Ricci, O. Sala, C. Veronesi, F. Mineo (Emilia, Italy) | 245 |
| Widia tool grinding: the importance of primary prevention measures in reducing occupational exposure to cobalt | |
| C. Cereda, M. L. Redaelli, M. Canesi, A. Carniti, S. Bianchi (Vimercate, Italy) | 249 |
| Cobalt exposure evaluation in dental prostheses production | |
| P. Leghissa, M.T. Ferrari, S. Piazzolla, M. Caironi, P.C. Parigi, E. Lebbolo (Bergamo and Trescore Balneario, Italy) | 253 |
| Evaluation and comparison of the levels of occupational exposure to cobalt during dry and/or wet hard metal sharpening. Environmental and biological monitoring | |
| P. Imbrogno, F. Alborghetti (Bergamo, Italy) | 259 |
| The European Congress on Cobalt and Hard Metal Disease. Conclusions, highlights and need of future studies | |
| E. Sabbioni, G. Mosconi, C. Minoia, P. Seghizzi (Varese, Bergamo and Pavia, Italy) | 263 |
| Author index | 271 |
| Subject index | 273 |